REMARKS

Amendments

Specification

The specification has been amended to correct several minor errors. For example, the term "phase locked loop" has been replaced with the technically correct term "phase lock loop" throughout the written description. Also, the various descriptions of Fig. 2A have been amended to present a consistent description throughout the specification. Further amendments are presented to conform the written description to the amendments in the drawings.

Drawings

Figures 2A, 2B, and 3 have been amended to make minor corrections and to ensure consistency in the terms used in those drawing figures and in the specification. More specifically, in Figure 2A the legend in block 35 has been changed to read "OFDM Rx First stage". In Figure 2B, the legend in decision box 5 has been changed to "Pilot detect" and the legend in step box 12 has been changed to "Perform pilot detect". In Figure 3, the legend in block 25 has been changed to "Pilot Detect".

No new matter is added by any of the amendments to the specification and the drawings.

Objections to the Claims

The Examiner objected to Claims 3-5, 7, 9, and 14-19 because the Examiner concluded that those claims contain certain informalities. The Examiner identified alleged informalities in Claims 3-5, 7, 9, 14-19. Following is a detailed description of the amendments made and those being questioned by the Applicant.

Claims 3 and 4

The Examiner objects that the phrase "each of a" on line 2 of claims 3 and 4 should

be 'each of the'. This amendment has been made.

Claim 4

The Examiner objects that the phrase "a number of" should be changed to "the number of" on line 4 of claim 4. This change has been made.

Claim 5

The Examiner states that the phrase "one digital" should be amended to "at least one digital". The Applicant disagrees. Claim 5 claims that one phase lock loop is initialized for each narrowband interferer. That feature has written support in the specification at page 15, lines 15 to 24. Amending Claim 5 as suggested by the Examiner would imply that more than one phase lock loop could be initialized for each estimated narrowband interferer. There is no basis for this in the specification and the specification teaches away from this.

By way of explanation, the narrowband interference detection system according to the present invention can cancel up to M narrowband interferers, where M is the number of phase lock loops in the system. One phase lock loop is initialised **for each** estimated narrowband interferer. For example, if it is assumed that there will be two narrowband interferers present then two phase lock loops are initialised. If only one locks then it can be assumed that only one narrowband interferer is actually present. If both lock then it is assumed that two interferers are present. If three narrowband interferers are actually present then the phase lock loops will lock onto the strongest two narrowband interferers. Each phase lock loop locks onto a different interferer.

The Examiner is requested to reconsider the objection to Claim 5 in the light of the foregoing explanation.

Claim 9

The Examiner objects that on line 3 of claim 9 and line 2 of claim 19 the phrase "from the phase" should be "from the". The Applicant disagrees. The phrase reads "from the phase lock loops". If the amendment that the Examiner requests is made the phrase would then read "from the locked loops". However the loops are phase lock loops. The Applicant requests that the Examiner reconsider this objection.

Claims 14 and 15

The Examiner suggests that the dependencies of Claims 14 and 15 be amended. Those claims have been amended as the Examiner suggested.

Claims 16 and 19

The Examiner objects that the phrase "an OFDM packet" in Claim 16 and Claim 19 be changed to "the OFDM packet". The suggested changes have been made.

Claim 19

The Examiner objects that the phrase "the current" be amended to "a current" and that the phrase "an excision filter" should be amended to "the excision filter". The Applicant has amended the phrase "an excision filter" as recommended by the Examiner. The phrase "a current" to "current" because it is believed to be more grammatically correct than "a current".

35 USC 112, First Paragraph: Claims 1 to 7 and 9 to 20

The Examiner rejected Claims 1 to 7 and 9 to 20 as failing to meet the enablement requirement of 35 USC 112, first paragraph. In making the rejection the Examiner states that the claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to

make and/or use the invention. The Examiner also states that the claimed subject matter in Claim 1 appears to relate to either Figure 2A or Figure 2B. The Examiner further says that as mentioned in the specification, Figure 2A is an interference suppression detector and the output from the excision filter 34 is provided to the OFDM receiver 35. The Examiner concludes that Claim 1 contains subject matter, at least in the preamble of the claim that is not described in the specification in such a way as to enable one skilled in the art to which it pertains to make and/or use the invention.

Claim 1

The Examiner is referred to the text on page 16 of the specification starting at line 11. That paragraph states that Figure 2A is a block diagram of the interference suppression detector as part of an OFDM receiver in accordance with the invention. The interference suppression apparatus of the invention is shown in blocks 33 and 34 and **is positioned between front end 31 and the first stage of the OFDM receiver 35**. This paragraph further goes on to say that the construction of front end 31 and the OFDM receiver first stage are described in more detail in Figure 3. The specification then goes on to describe the interference suppression technique in more detail referring to Figures 2A and 2B.

The paragraph described above clearly shows that the interference suppression system shown in Figure 2A is part of an OFDM receiver and in particular that shown in Figure 3. Front end 31 in Figure 2A corresponds to the RF module and module 201 shown in Figure 3. Figure 2B and Figure 3 have been amended to replace the words 'packet detect' with 'pilot detect'. The pilot detector 32 in Figure 2A corresponds to the pilot detector 25 in Figure 3. Narrowband interference suppression system 33 and excision filter 34 shown in Figure 2A correspond to the narrowband interference suppression system 24 in Figure 3. OFDM receiver first stage 35 shown in Figure 2A then corresponds to the first stage receiver 27 in Figure 3. The OFDM receiver continues in the second stage receiver, decoder and data sink shown in Figure 3.

A person skilled in the art reading the specification would understand how the interference suppression system shown in Figures 2A and 2B fits into the OFDM receiver shown in Figure 3. The Applicant submits then that Claim 1 is based on the enabling disclosure of the specification. The Examiner is requested to reconsider the rejection of Claim 1 under Section 112, first paragraph.

Claim 10

The Examiner objects that Claim 10 appears to correspond to the OFDM receiver shown in Figure 3 and the specification fails to discuss the relationship between Figures 2A and 2B on the one hand, which apply to the narrowband interference detector and excision filter, and Figure 3, on the other hand, showing the OFDM receiver to enable one skilled in the art, or with which it is most nearly connected, to make and/or use the invention. As pointed above the specification indeed contains enabling disclosure in particular the paragraph relating to Figure 2A on page 16. Further, enabling disclosure is provided in the text describing Figure 3, in particular, on page 18 in the paragraph stating at line 14 which reads "Pilot detector 25 and frame timing block 26 search for the start of a packet. Pilot detector 25 may also provide narrowband interference suppression when the packet is detected. Narrowband interference suppression block 24 applies narrowband interference suppression during the data transport phase of packet reception. In the preferred embodiment, this block implements the algorithm of Figure 2B." That paragraph clearly describes the relationship between Figures 2A, 2B, and Figure 3. The Applicant submits that the quoted text provides enabling disclosures that would allow one skilled in the art to make and use the invention described and claimed in this application.

The Applicant also submits that Claim 1 does not refer strictly to Figures 2A and 2B and Claim 10 does not refer strictly to Figure 3. Claim 1 is a method claim that covers the method aspect of the Applicant's invention, whereas Claim 10 is a corresponding apparatus claim.

Independent Claims 1 and 10 are not directed at different embodiments of the invention. The Examiner is requested to reconsider the rejection of Claim 10 under Section 112, first paragraph.

CONCLUSION

In view of the foregoing amendments and remarks, it is believed that all of the pending claims are in condition for allowance. The Applicant respectfully requests that the Examiner reconsider the objections to the claims and the rejection under Section 112, first paragraph in the light of the amendments and remarks presented above.

Respectfully submitted,

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Attachment: Replacement drawing sheets (3)